



CITY OF CHULA VISTA

Sewer Overflow Emergency Response Plan

**California Regional Water Quality Control Board
San Diego Region
ORDER No. 2006-0003-DWQ
Revised 1-09**

SEWER OVERFLOW
EMERGENCY RESPONSE
PLAN



SEWER OVERFLOW EMERGENCY RESPONSE PLAN

PURPOSE

The City of Chula Vista owns and operates a diverse collection system that consists of pump stations, gravity flow sewer mains and force mains. These facilities are well maintained and normally should not result in any sewage overflows or spills. However, the possibility exists that unforeseen accidents, equipment failure or other events not controllable by the City could result in sewer overflow or spills. This plan, when enacted in response to a sewer overflow or spill will reduce or eliminate public health hazards, prevent unnecessary property damage and minimize service interruption.

GENERAL

Normal and routine maintenance of the collection system allows the system to operate at its maximum design capacity. However, there may be times when an overflow or spill occurs. This Sewer Overflow Response Plan will help facilitate a timely and technically correct response.

In order for City staff to accurately assess the level of response, the potential liability claims for property damage, and to accurately report overflows/spills to regulatory agencies the following definitions shall apply:

SSO Categories

1. Category 1 - All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:
 - A. Equal or exceed 1000 gallons, or
 - B. Result in a discharge to a drainage channel and/or surface water; or
 - C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.
2. Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.
3. Private Lateral Sewage Discharges – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

STANDBY

Standby duty is defined as that period of time assigned by the Appointing Authority in addition to the employee's normal work week during which time the employee must be available by City provided cell phone or pager to respond to sanitary sewer emergencies.

SAFETY

Whenever city staff responds to a report of an overflow/spill, they may encounter an emergency situation that requires immediate action. The most critical aspect of resolving an incident of this nature

SEWER OVERFLOW EMERGENCY RESPONSE PLAN

is to safely, and competently perform the actions necessary to return service as soon as possible and to keep health and environmental impacts to a minimum.

The most important item to remember during this type of incident is that safe operations always take precedent over expediency or short cuts.

Depending on the nature or cause of the overflow/spill, staff may be performing mechanical or electrical repairs at a pump station, removing mainline blockages with combination vehicles or repairing a damaged section of pipeline. All essential safety procedures are to be followed so that the response does not cause the situation to escalate.

Responses may require staff to implement the following types of safety procedures:

- Lockout/Tagout of equipment for repair
- Confined space entry procedures
- Traffic control procedures at site
- Trench and shoring procedures
- Equipment and/or vehicle operation
- Use of personnel protective equipment

Communication is critical when responding to an overflow/spill; communication is maintained via 2-way radio or cell phone. Staff may need to call for additional personnel as the situation may warrant, notify a supervisor of the situation, and or to report overflow/spill to the proper authorities.

PROCEDURES

When Standby receives notification of a possible sanitary sewer overflow/spill, he or she will take immediate action and gather as much information as possible to determine the staffing and equipment needed for the response. This section will provide step-by-step procedures explaining the actions to be taken in response to an overflow/spill. The procedure will be based upon the type of overflow/spill including: mainline blockage, force main failure, pump station failure, and private line/lateral failure.

Traffic and Crowd Control

When responding to an overflow/spill location, staff will need to assess extent of area affected. Staff will determine type of traffic or crowd control to secure area from public contact. Below are methods used:

1. Use of traffic cones, barricades or warning tape to detour vehicle and pedestrian traffic safely around area.
2. Use of reflectorized clothing when working at night.
3. Use of proper traffic control patterns and advance warning signs as outlined by San Diego Regional Standards when working in the roadway.

I. Mainline Blockage

1. Contact property owner or person reporting the overflow/spill and obtain information on location to determine if the spill is within the city's service area.

SEWER OVERFLOW
EMERGENCY RESPONSE
PLAN

2. Upon arrival at the overflow/spill location, make a determination as to the source of the overflow/spill.
3. Secure area by placing cones or barricades around the affected area.
4. All reasonable methods to contain overflow/spill shall be used as soon as possible to prevent overflow/spill from expanding. Examples of reasonable containment methods are:
 - i. Vacuuming with combination vehicle
 - ii. Building a dike/berm
 - iii. Sandbagging/Geo Logs
 - iv. Bypass Pumping (Highline)
5. Inspect flow condition in structure/manholes up and downstream from the overflowing structure/manhole to determine the location of the blockage.
6. Use hydraulic (combination cleaner) or mechanical (rodding machine) equipment to relieve the blockage as soon as possible.
7. Once the blockage has been removed or problem is corrected and overflow has ceased, use the combination machine (Vac-Con/Vactor) to vacuum up the spill debris. Call additional personnel if needed to recover spill and begin the decontamination process.
8. If property damage has occurred, notify a Wastewater Supervisor immediately so photographs of the damaged area can be taken for risk management records.
9. Provide proper cleanup, removing any debris and disinfect affected area to minimize health hazards and or environmental impacts.
10. Do not volunteer information on liability. Only neutral comments shall be used by city staff indicating that the liability issue cannot be determined until all relevant information has been evaluated. Be polite and sympathetic to the property owner's concerns. Assure them that regardless who is at fault, you are there to assist them in expediting the cleanup.

A. If Overflow/Spill is Inside Structure

1. Assist the owner of the structure in calling a professional cleaning service for proper cleanup.
2. Draw a diagram of area affected by overflow. Note any water damage to private property. Take photographs of damaged area to assist Risk Management in settling potential claims.

B. If Overflow/Spill is Outside the Structure

1. When possible, recover spill by vacuuming using combination machine (Vactor).
 2. If area is inaccessible, remove debris by means of rake and shovel and disposed of properly.
 3. Wash area down and disinfect area.
11. Advise the property owner/occupant of procedure for filing a claim for damages with Risk Management.
 12. Make certain that the city's mainline is functioning properly before leaving the area.
 13. Complete all required reports with pertinent details including estimate of spill volume. Turn in all reports to a Wastewater Supervisor at the start of the next workday. (See County of San Diego Reporting requirements and Reporting Table on pages 9 & 10).

SEWER OVERFLOW
EMERGENCY RESPONSE
PLAN

II. Force Main Failure

In the event that a spill occurs due to a leak from a force main, the following actions will be taken:

1. The leaking force main will be isolated and if necessary, bypassed if the pump station retention area does not offer enough time to make the emergency repairs to the pipeline. High lining or the use of a temporary pipeline maybe installed so that sewage can be pumped around the affected area.
2. City personnel or an approved contractor, depending on the damage, location, volume of overflow and depth of pipe, may complete repairs to the force main.
3. If any overflow from the force main leakage discharges onto private property, public right-of-way or to surface waters, carry out the provisions for containment, reporting, and clean-up as described in I. Mainline Blockage.

III. Pump Station Failure

1. Most pump stations are equipped with a Supervisory Control And Data Acquisition (SCADA) to monitors pump stations around the clock. Set point for low and high water thresholds are set to alert the City staff of a pump station system failure.
2. City staff will check the status of alarm utilizing the interface via their desktop workstation or portable laptop and determine if a remedy can be made remotely, or whether staff needs to go to the lift station.
3. If a crew visit is warranted, upon arrival at the pump station, a determination is made as to what extent of action is required. Staff performs the necessary actions to return the pump station to normal operations.
4. If an overflow has occurred, staff carries out provisions for containment, reporting and cleanup as described in Section I. Mainline Blockage.

CONTINGENCIES FOR PUMP STATION POWEROUTAGES AND FAILURES

The City owns three auto start dry-prime portable pumps for emergency wastewater management.

1. Godwin CD100M 4" Dry Prime portable pump.
2. Gorman-Rupp PA6C 6" Dry Prime portable pump.
3. Powerprime 8"x 6" Dry-Prime High head portable pump.

Additional Equipment

1. Hose reel trailer with 4 " & 6" lay flat pump discharge hose. Approximately ½ mile of flexible discharge hose and ¼ mile of ridged aluminum highline pipe.

Emergency Phone Numbers For Equipment Rental or Service.

1. Generator Service or Rental: Bay City Electric Works 24 Hr. Emergency Phone – 1 (858) 268-9130.
2. Pump and Highline Rental: Rain For Rent 24 Hr. Emergency Phone 1(909) 653-2171.

SEWER OVERFLOW
EMERGENCY RESPONSE
PLAN
CONTINGENCY PLAN BY STATION

Public Service Building, PS-01, Police Station (276 Fourth Ave.)

- Power Outage-Station is outfitted with emergency generator for pump power.
- Pump Failure-Has second pump, Station is equipped with backup control system.
- Forced Main Failure - Combination truck can maintain wet well level and service to building.

G St., Power. PS-02, (890 G St.)

- Power Outage-Station is outfitted with emergency generator for pump power.
- Pump Failure-Has second pump. A properly sized portable pump can be brought to site to maintain flows.
- Forced Main Failure-Combination Truck can begin to maintain wet well level and service to building until highline/bypass sewer pumping can be setup.

Police Department PS-07, (350 GF Street)

- Power Outage-Station is outfitted with emergency generator for pump power.
- Pump Failure-Station has second pump and equipped with backup control system. Two additional pumps are stored at CVPW warehouse.
- Forced Main Failure-Combination Truck can begin to maintain wet well level and service to building until a highline/bypass sewer pumping can be setup.

Hilltop, PS-11, (940 Hilltop Dr.)

- Power Outage-Rented Generator to maintain safe level until repairs can be made.
- Pump or Force Main Failure – Portable pump can be connected to emergency pump connection or combination truck.

Parkside Dr. PS-12 (598 Parkside Dr.)

- Power Outage-Station has a back-up Natural Gas engine that drives pump.
- Pump or Force Main Failure-Pump using highline to maintain safe level until repairs can be made.

Max Field, PS-15 (1500 Max Ave.)

- Any failure-Secure all sources of influent sewage by locking restrooms. If necessary to keep restrooms open, sewage can be pumped using highline or Combination truck to maintain safe level until repairs can be made.

Auto Park, PS-17(560 auto Park Dr.)

- Power Outage-Station has a back-up Natural Gas engine that drives pump
- Pump or Forced Main Failure-Station is equipped with dual forced mains in case one fails. In the event of both force main failure, wet well can be pumped using highline and/or a combination truck to maintain safe level until repairs can be made.

Eastlake Parkway, PS-22(1196 Eastlake Pkwy)

(Station is currently being phased out. Station will be bypassed to a gravity flow and decommissioned by early 2009)

- Power Outage Station-Has back-up diesel generator for emergency power.
- Pump or Force Main Failure-Will be managed with a highline and/or combination truck(s) to maintain safe level until repairs can be made.

SEWER OVERFLOW
EMERGENCY RESPONSE
PLAN

Rancho Robinhood II, PS-24, (277 Surrey Pl)

- Any failure-Can be managed with a portable pump or combination truck until repairs can be made.

Rancho Robinhood II, PS-25(375 Corral Ct)

- Any failure-Will be managed with a combination truck until repairs can be made.

Olympic Training Ctr. II, PS-28, (1750 Wueste Rd)

- Pump failure & Power Failure-Station has auto shutdown of water to facility if wet well reaches high water alarm level.
- Forced Main failure-Station has dual forced mains if one were to fail.

Agua Vista, PS-29, 800 Agua Vista)

- Power outages-Station has a diesel generator as backup power supply.
- Pump or Force Main Failure-Station has a set of underground detention vaults capable of containing 6 hours of average flow. Station is equipped with dual forced mains and has an emergency pump connection.

Salt Creek, PS-30, (2750 Otay Lakes Rd)

- Any Failure-Close restroom (Only source of wastewater) or service with combination truck.

IV. PRIVATE LINE/LATERAL FAILURE

1. If it is determined that the overflow is originating from a private line or lateral, the owner or property manager will be notified that they are responsible for corrective actions.
2. If any overflow from a private line or lateral discharges onto public property, public right-of-way, or onto surface waters, staff will carry out the provisions for containment, reporting, and cleanup as described in section I. Mainline Blockage.
3. If it is determined that the overflow/spill is originating from a sewer lateral staff will follow the City of Chula Vista Council Policy, Sewer Maintenance Resolution No.4377. If all the criteria are met in the City policy, staff will assist the homeowner or property manager to take corrective action to relieve the blockage.

NOTE: STAFF MUST FOLLOW ALL REPORTING REQUIREMENTS AS OUTLINED IN THE STATE WASTE DISCHARGE REQUIREMENTS (WDR), MONITORING & REPORTING PROGRAM REQUIREMENTS NO.2006-0003 WDQ

SEWER OVERFLOW
EMERGENCY RESPONSE
PLAN

**Chula Vista Public Works Sewer Spill Reporting
Flow Chart**

